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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,843	09/19/2000	Dan Kikinis	ISURFTV132	5390

52940 7590 02/27/2007

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EXAMINER

NGUYEN, KIMBINH T

ART UNIT

PAPER NUMBER

2628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/664,843	<b>Applicant(s)</b> KIKINIS, DAN	
	<b>Examiner</b> Kimbinh T. Nguyen	<b>Art Unit</b> 2628	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-18,20-29,31-40 and 42-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-18,20-29,31-40,42-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to amendment filed 01/26/04.
2. Claims 1-7, 9-18, 20-29, 31-40, 42-44 are pending in the application.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 11, 12, 22, 23, 33, 34 and 44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter "internal and external planes" which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

### ***Claim Rejections - 35 USC § 101***

5. Claims 34-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite "A machine readable medium" appear to be directed to nonfunctional descriptive material that does not constitute a statutory process. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer readable medium to provide the necessary functional and structural interrelationship to satisfy the requirement of 35 U.S.C 101.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-7, 9-12, 14-18, 20-23, 25-29, 31-34 and 36-40, 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto (6,094,237) in view of Kamen et al. (6,421,067).

**Claim 1**, Hashimoto discloses displaying a 3D polyhedron (col. 14, lines 56-57; fig. 5); forming a plane positioned in the polyhedron, the plane comprising objects, the objects comprising interactive surfaces (col. 2, lines 11-16); Hashimoto does not suggest displaying geometric surface positioned in the polyhedron; however, Kamen et al. discloses displaying geometric surface positioned in the polyhedron, the geometric surface comprising objects (fig. 2, an octahedron 563) (col. 14, lines 4-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the Kamen's teaching into Hashimoto's method for producing the claimed invention because using the Electronic Programming Guide (EPG) comprises a set of geometric surfaces located in virtual 3D space, it would provide the user with a more powerful and convenient television in a desktop environment, while simultaneously increasing the efficiency of navigation by the user through the EPG; and further Kamen teaches the polyhedron has both internal and external plane surfaces which are used to display information (display a polyhedron (e.g. a cube) with different video images

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appearing on the various faces of the cube (could be an external plane surface and an internal plane surface by altering the position of a "virtual viewer"; altering the orientation of the polyhedron faces; col. 14, lines 5-27; the surfaces can be observed from different perspectives, from different "virtual locations" and also could be internal and external plane surfaces (col. 3, lines 60-65).

**Claims 3-5 and 10**, Kamen et al. discloses the objects are independent (particular shape at a particular angle) of the polyhedron (col. 14, lines 8-26); the polyhedron is displayed with a perpendicular view (col. 5, lines 8-9); the polyhedron is displayed with an isometric view (col. 5, lines 7-8; fig. 2); the polyhedron is a cube (col. 14, lines 13-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate EPG can be used geometric surfaces (polyhedron) taught by Kamen into the system of Hashimoto for displaying EPG surfaces, because portions of the EPG can be used to display reduced size versions of program appearing on various channels, thereby permitting a viewer to preview program (col. 13, lines 54-57)

**Claim 6**, Hashimoto et al. discloses the plane is positioned in front of the geometric surfaces (col. 3, lines 31-34).

**Claim 7**, Hashimoto discloses the objects (channels) represent a television program (col. 5, lines 33-40).

**Claim 9**, Hashimoto et al. discloses the EPG is displayed exclusive of 3D graphics circuitry (col. 6, lines 44-52).

**Claim 11**, Hashimoto discloses the information positioned in the external plane (at the front position) represent television programs which are preferred (to select a desired channel) (col. 10, lines 25-30); Hashimoto does not suggest the objects positioned in the internal surface represent television programs which are not preferred; however, Kamen et al. discloses if the EPG is "shrunk" to fit in a relatively small window within the TV viewing screen (internal surface), a viewer can still determine which programs are not of interest (not preferred) (col. 3, lines 24-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate EPG pictograms taught by Kamen into the system of Hashimoto for displaying EPG surfaces, because it would allow a viewer can still determine from the EPG which programs are not interest (col. 3, lines 25-29).

**Claim 12** claims an Electronic Programming Guide comprising: three dimensional polyhedron (Hashimoto, fig. 5); the polyhedron comprising a plane and geometric surface positioned (Hashimoto, col. 2, lines 11-16); the plane comprising objects; geometric surface comprising objects; and objects comprising interactive surface (Kamen, col. 14, lines 4-27); the polyhedron has both internal and external plane surfaces. These features correspond to a method for displaying an Electronic Program Guide discussed in claim 1; therefore, claim 12 is rejected on the same basis set forth in claim 1 and by the rationale provided above.

**Claims 14-18, 20-22** which correspond to the method of claims 3-7 and 9-11 (see discussions in claims 3-7). Therefore, claims 14-18 and 20-22 are rejected on the same basis set forth in claims 3-7 and 9-11.

**Claims 23, 25-29, 32 and 33** are apparatus claims corresponding to the method claims 1, 3-7 and 9-11 (see discussions in claims 1, 3-7 and 9-11). Therefore, claims 23, 25-29 and 32, 33 are rejected on the same basis set forth in claims 1, 3-7 and 9-11 and by the rationale provided above.

**Claims 34 and 36-40, 42-44**, Hashimoto et al. discloses a machine readable medium having stored sequences of instructions which are executable by a processor (col. 6, lines 44-57), cause the system to perform a method for displaying an Electronic Programming Guide (EPG) comprising claimed elements corresponding to the method of claims 1, 3-7 and 9-11. Therefore, claims 34, 36-40 and 42-44 are rejected on the same basis set forth in claims 1, 3-7 and 9-11, and by the rationale provided in claims 1, 3-7 and 9-11.

8. Claims 2, 13, 24 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto (6,094,237) in view of Kamen et al. (6,421,067) as applied to claims above, and further in view of Glenn et al. (6, 043,825).

**Claim 2**, Hashimoto and Kamen do not suggest hyperbolic plane; however, Glenn et al. discloses the geometric surfaces are hyperbolic planes (the three dimensional interconnection network consists of vertices defined by a series of perpendicular quadrilaterals; where the vertices of the quadrilaterals are mapped onto a 2D hyperbolic plane using geometric functions based on the vertex chosen (abstract) (col. 3, lines 65 through col. 4, line 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the Glenn's teaching into Hashimoto's method for producing the claimed invention, because using a hyperbolic

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projection on the hyperbolic plane of the information layout, it would create the nearest neighbor data points for each vertex (reduce the distance) in each quadrilateral, provide perpendicular quadrilaterals (perpendicular view) to the list of data points of reference to improve program guide.

**Claim 13**, Glenn et al. discloses the geometric surfaces are hyperbolic planes (col. 3, lines 65 through col. 4, line 9). Claim 13 corresponding to the method of claim 2, and is rejected on the same basis set forth in claim 2.

**Claim 24** is an apparatus claim corresponding to the method claim 2 and is rejected on the same basis set forth in claim 2.

**Claim 35** corresponds to the method claim 2 and is rejected on the same basis set forth in claim 2.

### ***Response to Arguments***

9. Applicant's arguments filed 01/26/04 have been fully considered but they are not persuasive because the independent claims have been modified the limitations which are not support in the description of the invention (the new subject matter).

10. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



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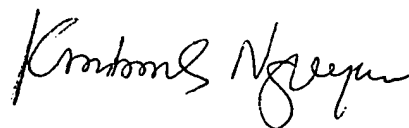
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimbinh T. Nguyen whose telephone number is (571) 272-7644. The examiner can normally be reached on Monday to Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Friday from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached at (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 23, 2007



**KIMBINH T. NGUYEN**  
**PRIMARY EXAMINER**